What is claimed is:

1. A system for controlled delivery of one or more drugs to a patient's body, the system comprising:

an array of one or more substantially solid drug solution delivery perforators, with each perforator having a first end with at least one point or blade adapted for penetrating skin and for providing a skin aperture on a patient's body, with at least one of the perforators including a matrix material that is dissolvable, swellable or biodegradable within a selected time interval when the perforator is positioned within the patient's body, and including a first selected drug distributed within the matrix, where the perforator array can be positioned adjacent to a selected region of the patient's skin; and

an activatable pressure mechanism, associated with the at least one perforator, for causing the at least one perforator to penetrate the patient's skin at the selected region, in response to activation of the pressure mechanism.

2. The system of claim 1, wherein said at least one perforator comprises a matrix material that is at least one of a polymer, a carbohydrate derivative, a water-soluble glass, a water-soluble halide, a non-ionic hydrophilic surfactant, an ionic surfactant and a lipophilic additive.

3. The system of claim 1, wherein said at least one perforator comprises a matrix material that is 100 percent drug.

4.The system of claim 1, wherein said at least one perforator comprises a solid matrix material having at least one selected drug distributed within the

matrix, where the drug is at least one of a protein, a peptide, a DNA component, a gene, a polysaccharide, a vaccine, a synthetic organic compound and a synthetic non-organic compound.

5. The system of claim 1, wherein said at least one perforator is positioned to penetrate said skin to an epidermal layer of said skin.

6. The system of claim 1, wherein said at least one perforator is positioned to penetrate said skin to a dermal layer of said skin.

7. The system of claim 1, wherein said pressure mechanism provides adjustment of skin penetration depth of said at least one perforator.

8. The system of claim 1, wherein said pressure mechanism is adapted to withdraw said at least one perforator from said patient's skin, after said at least one perforator has penetrated said patient's skin.

9. The system of claim 1, wherein said pressure mechanism is drawn from a group of skin penetration mechanisms consisting of an activatable spring, a screw driven by an activatable screw motor, a gas pressure-driven device and a manually operated perforator.

10. The system of claim 1, wherein said pressure mechanism, when activated, drives said at least one perforator into said patient's skin a selected distance in a range of 10-1000 μm.

11. The system of claim 1, wherein said first end of said at least one perforator is a needle having a cross-sectional shape that is polygonal.

12. The system of claim 1, wherein said first end of said at least one perforator is a needle having a cross-sectional shape that is cusp-like.

13.The system of claim 1, wherein said first end of said at least one perforator is a blade.

14. The system of claim 1, wherein said at least one perforator has an outer diameter near said first end in a range of 10-100 μm.

15. The system of claim 1, further comprising a fluid reservoir, in fluid communication with said skin aperture and having a fluid container adapted for receiving and holding a selected amount of a second selected drug.

16. The system of claim 15, wherein said reservoir comprises a patch reservoir that receives and holds said second drug, and said first and second drugs are substantially the same.

17. The system of claim 15, wherein said reservoir comprises a patch reservoir that receives and holds said second drug, and said first and second drugs are different from each other.

18. The system of claim 15, wherein said reservoir comprises a patch reservoir having an annular region of adhesive that surrounds and contacts said selected region on said patient's skin.

19. The system of claim 18, wherein said adhesive comprises a substance that is anti-bacterial.

20. The system of claim 16, further comprising a second array of perforators, located adjacent to said first array of perforators, with at least one perforator in the second array having a first end with at least one point or blade and being oriented so that the at least one perforator in the second array and said fluid container can be moved relative to each other to provide at least one aperture in said fluid container.

21. The system of claim 15, wherein said reservoir contains a fluid comprising a chemical enhancer drawn from a group consisting of a fatty alcohol, an acid, an ester, a surfactant, a macrocyclis, a terpene, a phospholipid, a pyrrolidone, an amide and an amino acid.

22. The system of claim 15, further comprising a drug introduction mechanism that permits flow of said second drug from said reservoir to said at least one perforator aperture in said patient's skin when said pressure mechanism has been activated.

23. The system of claim 1, wherein said array of perforators includes at least 20 of said perforators in a region having an area no more than 1 cm^2.

24. The system of claim 1, further comprising at least a second of said perforators that includes a second matrix material that is dissolvable, swellable or biodegradable within a selected second time interval, when positioned within said patient's body, and substantially no drug is distributed within the second matrix material.

25. A system for diagnosis of a selected body fluid in a patient's body, the system comprising:

an array of one or more solid perforators, with each perforator having a first end with at least one point or blade adapted for penetrating skin and for providing a skin aperture on a patient's body, with at least one of the perforators including a matrix material that is dissolvable, swellable or biodegradable within a selected time interval when the perforator is positioned within the patient's body, where no drug is distributed within the matrix and where the perforator array can be positioned adjacent to a selected region of the patient's skin; and

an activatable pressure mechanism, associated with the at least one perforator, for causing the at least one perforator to penetrate the patient's skin at the selected region, in response to activation of the pressure mechanism.